



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT

DEPARTMENT OF LAND AND SPATIAL SCIENCES

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| QUALIFICATIONS: BACHELOR OF GEOMATICS, DIPLOMA IN GEOMATICS | |
| QUALIFICATIONS CODES: 07BGEO,06DGEO | QUALIFICATIONS LEVEL: 7 - 07BGEO, 6 - 06DGEO |
| COURSE CODE: CAS520S | COURSE NAME: CADASTRAL SURVEYING 1 |
| SESSION: JULY 2025 | PAPER: THEORY |
| DURATION: 3 HOURS | MARKS: 100 |

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER

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| EXAMINER: | Mr Taruwona Makaza |
| MODERATOR: | Mr Frikkie Louw |

INSTRUCTIONS

1. Answer ALL the questions.
2. Write clearly and neatly.
3. Number the answers clearly.

PERMISSIBLE MATERIALS

Calculator, ruler, pen, pencil and eraser

THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)

Question 1

- (a) Define Cadastral Surveying. (4)
- (b) "Because the cadastral system in Egypt developed around the definition of arable land, the system became also quite important in re-establishing the delineated boundaries after the annual floods of the Nile River washed away the evidence of land boundaries." Describe how these boundaries were re-established after the annual floods. (2)
- (c) Describe the purpose of the Land Survey Act, 1993. (1)
- (d) According to the Land Survey Act, what qualifications should one have to be eligible to be the Surveyor-General? (1)
- (e) Describe the four (4) duties of a Land Surveyor as per the Land Survey Act. (8)
- (f) In countries like South Africa and Namibia, where natural and cultural features are few and far apart, what is the practical method of demarcating property? (2)
- (g) Describe any two (2) duties of the Surveyor-General. (4)
- (h) Define 'Land Surveyor' as per the Land Survey Act. (3)

[25]**Question 2**

- (a) Define demarcation. (2)
- (b) Describe the following five (5) types of demarcation surveys:
- i. Beacon relocation; (2)
 - ii. Subdivision survey; (2)
 - iii. Consolidation survey; (2)
 - iv. Township survey; (2)
 - v. Sectional title surveys; (2)
- (c) Mention any two (2) reasons why a beacon relocation may be needed. (2)
- (d) Define 'servitude'. (2)
- (e) Mention three conditions that must be satisfied for consolidation to be possible. (3)

- (f) Mention the six (6) steps to follow in the performance of a cadastral survey e.g. a subdivision. (6)

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Question 3

- (a) Mention the subdivisions that comprise the Division Survey and Land Information of the Surveyor-General's Office. (2)
- (b) Give a brief description of the following sections that comprise the Division Survey and Land Information:
- i. Section Cadastral Surveys; (1)
 - ii. Section Geodetic Surveys; (1)
 - iii. Section Survey Examinations; (1)
 - iv. Section Land Information; (1)
- (c) Mention any six (6) kinds of information that you find in the Erf register (6)
- (d) Describe any four characteristics of Noting Plans. (8)
- (e) Mention any five (5) kinds of survey diagrams. (5)

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Question 4

- (a) Say the owner of an erf encroached onto the street and she applied to the municipality to buy that piece of street and the municipality has resolved to sell the piece to her; mention the two kind of professionals that she would normally employ to do an Urban and Regional Planning Board application for her? State the name of a special certificate that is issued by the municipality as part of the approval process. (3)
- (b) What is the importance of the subdivision sketch during examination at the Surveyor-General's Office? (2)
- (c) Mention two ways by which you calculate the coordinates of new subdivision points? (2)
- (d) Explain how you would place subdivision beacons if control points are far from the site of the survey.

(2)

(e) Describe the following five records that must be included in the survey records.

i. survey report; (2)

ii. regulation 57(1)k certificate; (2)

iii. data consistency check; (2)

iv. coordinate list; (2)

v. calculations; (2)

(h) Mention the three copies of diagrams that the Surveyor-General approves. (6)

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